

Serial Number: 09/359,300A

ENTERED

- ☐ Changed a file from non-ASCII to ASCII
- ☐ Changed the margins in cases where the sequence text was "wrapped" down to the next line. 1636
- ☐ Edited a format error in the Current Application Data section, specifically: #31
- ☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other \_\_\_\_\_
- ☐ Added the mandatory heading and subheadings for "Current Application Data".
- ☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.
- ☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically: \_\_\_\_\_
- ☐ Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: \_\_\_\_\_
- ☐ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: \_\_\_\_\_
- ☐ Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.
- ☐ Inserted colons after headings/subheadings. Headings edited included: \_\_\_\_\_
- ☐ Deleted extra, invalid, headings used by an applicant, specifically: \_\_\_\_\_
- ☒ Deleted: ☐ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file; ☐ page numbers throughout text; ☐ other invalid text, such as \_\_\_\_\_
- ☐ Inserted mandatory headings, specifically: \_\_\_\_\_
- ☐ Corrected an obvious error in the response, specifically: \_\_\_\_\_
- ☐ Edited identifiers where upper case is used but lower case is required, or vice versa.
- ☐ Corrected an error in the Number of Sequences field, specifically: \_\_\_\_\_
- ☐ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.
- ☐ Deleted **ending** stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: \_\_\_\_\_
- ☐ Other: \_\_\_\_\_

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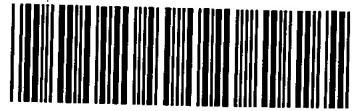
\*Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

3/1/95

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OIPE

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/359,300A

DATE: 05/22/2002

TIME: 17:12:54

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF3\05222002\I359300A.raw

P.6

4 <110> APPLICANT: KUMAGAI. Monto H.  
 5 DELLA-CIOPPA, Guy R.  
 6 ERWIN, Robert L.  
 7 McGEE, David R.  
 9 <120> TITLE OF INVENTION: METHOD OF COMPILING A FUNCTIONAL GENE PROFILE BY  
 TRANSPECTING A NUCLEIC  
 10 ACID SEQUENCE OF A NON-PLANT DONOR INTO A HOST PLANT IN A POSITIVE SENSE  
 11 ORIENTATION  
 13 <130> FILE REFERENCE: 008010137US07  
 15 <140> CURRENT APPLICATION NUMBER: 09/359,300A  
 C--> 16 <141> CURRENT FILING DATE: 2002-04-29  
 18 <160> NUMBER OF SEQ ID NOS: 71  
 20 <170> SOFTWARE: FastSEQ for Windows Version 3.0  
 22 <210> SEQ ID NO: 1  
 23 <211> LENGTH: 26  
 24 <212> TYPE: DNA  
 25 <213> ORGANISM: Tomato mosaic virus  
 27 <400> SEQUENCE: 1  
 28 ctcgcaaagt ttggaaccaa atcctc  
 30 <210> SEQ ID NO: 2  
 31 <211> LENGTH: 35  
 32 <212> TYPE: DNA  
 33 <213> ORGANISM: Tomato mosaic virus  
 35 <400> SEQUENCE: 2  
 36 cgggggtacct gggccccaac cggggggttc ggggg  
 38 <210> SEQ ID NO: 3  
 39 <211> LENGTH: 41  
 40 <212> TYPE: DNA  
 41 <213> ORGANISM: Tomato mosaic virus  
 43 <400> SEQUENCE: 3  
 44 tcctcgagcc taggtcgcga aagtttcgaa ccaaatacctc a  
 46 <210> SEQ ID NO: 4  
 47 <211> LENGTH: 35  
 48 <212> TYPE: DNA  
 49 <213> ORGANISM: Tomato mosaic virus  
 51 <400> SEQUENCE: 4  
 52 cgggggtacct gggccccaac cggggggttc ggggg  
 54 <210> SEQ ID NO: 5  
 55 <211> LENGTH: 24  
 56 <212> TYPE: DNA  
 57 <213> ORGANISM: Tomato mosaic virus  
 59 <400> SEQUENCE: 5  
 60 tatgtatggt gcagaagaac agat  
 62 <210> SEQ ID NO: 6

## RAW SEQUENCE LISTING

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63 <211> LENGTH: 24
64 <212> TYPE: DNA
65 <213> ORGANISM: Tomato mosaic virus
67 <400> SEQUENCE: 6
68 agtcgactct tcctcttctg gcat
70 <210> SEQ ID NO: 7
71 <211> LENGTH: 30
72 <212> TYPE: DNA
73 <213> ORGANISM: Tomato mosaic virus
75 <400> SEQUENCE: 7
76 tgctcgagtg tgttcttcag ttttctgtca
78 <210> SEQ ID NO: 8
79 <211> LENGTH: 30
80 <212> TYPE: DNA
81 <213> ORGANISM: Tomato mosaic virus
83 <400> SEQUENCE: 8
84 aactcgagcg ctttgatttc tccgaagctt
86 <210> SEQ ID NO: 9
87 <211> LENGTH: 114
88 <212> TYPE: DNA
89 <213> ORGANISM: Tomato mosaic virus
91 <220> FEATURE:
92 <221> NAME/KEY: CDS
W--> 93 <222> LOCATION: (28)...(115)
95 <400> SEQUENCE: 9
96 gtttttaaata cgctcgaggt tttaaata atg tct gtt gcc ttg tta tgg gtt gtt
97                               Met Ser Val Ala Leu Leu Trp Val Val
98                               1           5
100 tct cct tgt gac gtc tca aat ggg aca agt ttc atg gaa tca gtc cgg
101 Ser Pro Cys Asp Val Ser Asn Gly Thr Ser Phe Met Glu Ser Val Arg
102 10           15           20           25
104 gag gga aac cgt
105 Glu Gly Asn Arg
109 <210> SEQ ID NO: 10
110 <211> LENGTH: 29
111 <212> TYPE: PRT
112 <213> ORGANISM: Tomato mosaic virus
114 <400> SEQUENCE: 10
115 Met Ser Val Ala Leu Leu Trp Val Val Ser Pro Cys Asp Val Ser Asn
116 1           5           10           15
117 Gly Thr Ser Phe Met Glu Ser Val Arg Glu Gly Asn Arg
118           20           25
120 <210> SEQ ID NO: 11
121 <211> LENGTH: 39
122 <212> TYPE: DNA
123 <213> ORGANISM: Nicotiana benthamiana
125 <400> SEQUENCE: 11
126 gcctcgagtg cagcatggaa acccttctaa agcttttcc
128 <210> SEQ ID NO: 12

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## RAW SEQUENCE LISTING

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Input Set : A:\PTO.AMC.txt

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129 <211> LENGTH: 36
130 <212> TYPE: DNA
131 <213> ORGANISM: Nicotiana benthamiana
133 <400> SEQUENCE: 12
134   tccctagggtc aaaggctctc tattgctaga ttgccc          36
136 <210> SEQ ID NO: 13
137 <211> LENGTH: 111
138 <212> TYPE: DNA
139 <213> ORGANISM: Tobacco mosaic virus
141 <220> FEATURE:
142 <221> NAME/KEY: CDS
143 <222> LOCATION: (25)...(111)
145 <400> SEQUENCE: 13
146   gttttaaata cgctcgagtg cagc atg gaa acc ctt cta aag cct ttt cca          51
147                               Met Glu Thr Leu Leu Lys Pro Phe Pro
148                               1             5
150   tct cct tta ctt tcc att cct act cct aac atg tat agt ttc aaa cac          99
151   Ser Pro Leu Leu Ser Ile Pro Thr Pro Asn Met Tyr Ser Phe Lys His
152   10             15             20             25
154   aac ttc act ttt          111
155   Asn Phe Thr Phe
159 <210> SEQ ID NO: 14
160 <211> LENGTH: 29
161 <212> TYPE: PRT
162 <213> ORGANISM: Tobacco mosaic virus
164 <400> SEQUENCE: 14
165   Met Glu Thr Leu Leu Lys Pro Phe Pro Ser Pro Leu Leu Ser Ile Pro
166   1             5             10             15
167   Thr Pro Asn Met Tyr Ser Phe Lys His Asn Phe Thr Phe
168   20             25
170 <210> SEQ ID NO: 15
171 <211> LENGTH: 44
172 <212> TYPE: DNA
173 <213> ORGANISM: Erwinia herbicola
175 <400> SEQUENCE: 15
176   ccaagcttct cgagtcagc atgcagcaac cgccgctgct tgac          44
178 <210> SEQ ID NO: 16
179 <211> LENGTH: 43
180 <212> TYPE: DNA
181 <213> ORGANISM: Erwinia herbicola
183 <400> SEQUENCE: 16
184   aagatctctc gagctaaacg ggacgctgcc aaagaccggc cgc          43
186 <210> SEQ ID NO: 17
187 <211> LENGTH: 23
188 <212> TYPE: DNA
189 <213> ORGANISM: Tobacco mild green mosaic virus
191 <400> SEQUENCE: 17
192   tgtgaaactc gaaaaggttc cgg          23
194 <210> SEQ ID NO: 18

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RAW SEQUENCE LISTING  
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Input Set : A:\PTO.AMC.txt  
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195 <211> LENGTH: 36
196 <212> TYPE: DNA
197 <213> ORGANISM: Tobacco mild green mosaic virus
199 <400> SEQUENCE: 18
200  cggggtacct gggccgctac cggcggttag gggagg          36
202 <210> SEQ ID NO: 19
203 <211> LENGTH: 31
204 <212> TYPE: DNA
205 <213> ORGANISM: Ribgrass mosaic virus
207 <400> SEQUENCE: 19
208  tactcgaggt tcataagacc gcggtaggcg g          31
210 <210> SEQ ID NO: 20
211 <211> LENGTH: 36
212 <212> TYPE: DNA
213 <213> ORGANISM: Ribgrass mosaic virus
215 <400> SEQUENCE: 20
216  cggggtacct gggcccctac ccggggttta gggagg          36
218 <210> SEQ ID NO: 21
219 <211> LENGTH: 107
220 <212> TYPE: DNA
221 <213> ORGANISM: N. tabacum
223 <220> FEATURE:
224 <221> NAME/KEY: CDS
225 <222> LOCATION: (21)...(107)
227 <400> SEQUENCE: 21
228  gtttttaaata cgctcgagcc atg gct tcc tca gtt ctt tcc tct gca gca gtt          53
229                               Met Ala Ser Ser Val Leu Ser Ser Ala Ala Val
230                               1             5             10
232  gcc acc cgc agc aat gtt gct caa gct aac atg gtt gca cct ttc act          101
233  Ala Thr Arg Ser Asn Val Ala Gln Ala Asn Met Val Ala Pro Phe Thr
234             15             20             25
236  ggc ctt          107
237  Gly Leu
241 <210> SEQ ID NO: 22
242 <211> LENGTH: 29
243 <212> TYPE: PRT
244 <213> ORGANISM: N. tabacum
246 <400> SEQUENCE: 22
247  Met Ala Ser Ser Val Leu Ser Ser Ala Ala Val Ala Thr Arg Ser Asn
248  1             5             10             15
249  Val Ala Gln Ala Asn Met Val Ala Pro Phe Thr Gly Leu
250             20             25
252 <210> SEQ ID NO: 23
253 <211> LENGTH: 1543
254 <212> TYPE: DNA
255 <213> ORGANISM: Tobacco mild green mosaic virus
257 <400> SEQUENCE: 23
258  ctcgagggttc ataagaccgc ggtaggcgga gcgtttgttt actgtagtat aattaaatat          60
259  ttgtcagata aaaggttggtt taaagatttg ttttttggtt gactgagtcg ataatgtctt          120

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## RAW SEQUENCE LISTING

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Input Set : A:\PTO.AMC.txt

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260 acgagcctaa agttagtgac ttccttgctc ttacgaaaaa ggaggaaatt ttaccaagg 180
261 ctttgacgag attaaagact gtctctatta gtactaagga tgttatatct gttaaggagt 240
262 ctgagtcctt gtgtgatatt gatttgtagg tgaatgtgcc attagataag tataggtagt 300
263 tgggtgtttt ggggtgtggt ttcaccggtg aatggctggt accggatttc gttaaagggt 360
264 gggtaacagt gagcgtgatt gacaaacggc ttgaaaattc cagagagtgc ataattggt 420
265 cgtaccgagc tgctgtaaag gacagaaggt tccagttcaa gctggttcca aattacttcg 480
266 tatccattgc ggatgccaa cgaaaaaccgt ggcaggttca tgtgcgaatt caaaatctga 540
267 agatcgaagc tggatggcaa cctctagctc tagagggtgt ttctgttgcc atggttacta 600
268 ataacgtggt tgttaaagggt ttgagggaaa aggtcatcgc agtgaatgat ccgaacgtcg 660
269 aagggttcga aggtgtggtt gacgatttcg tcgattcggt tgcgtcattc aaggcgattg 720
270 acagtttccg aaagaaaaag aaaaagattg gaggaagggg tgtaaataat aataagtata 780
271 gatatagacc ggagagatac gccggtcctg attcggtaca atataaagaa gaaaatggtt 840
272 tacaacatca cgagctcgaa tcagtaccag tatttcgcag cgatgtgggc agagcccaca 900
273 gcgatgctta accagtgcgt gtctgcgttg tcgcaatcgt atcaaactca ggcggcaaga 960
274 gatactgtta gacagcagtt ctctaaccct ctgagtgcga ttgtgacacc gaaccagcgg 1020
275 tttccagaaa caggataccg ggtgtatatt aattcagcag ttctaaaacc gttgtacgag 1080
276 tctctcatga agtcctttga tactagaaat aggatcattg aaactgaaga agagtcgcgt 1140
277 ccatcggtt ccgaagtatc taatgcaaca caacgtgttg atgatgcgac cgtggccatc 1200
278 aggagtcaaa ttcagctttt gctgaacgag ctctccaacg gacatggtct gatgaacagg 1260
279 gcagagttcg aggtttttatt accttgggct actgcgccag ctacataggc gtggtgcaca 1320
280 cgatagtgca tagtggtttt ctctccactt aaatcgaaga gatatactta cgggtgtaatt 1380
281 ccgcaagggt ggcgtaaaacc aaattacgca atgttttagg ttccatttaa atcgaaacct 1440
282 gttatttcct ggatcacctg ttaacgtacg cgtggcgat attacagtgg gaataactaa 1500
283 aagtgaagg ttcgaatcct ccctaaccct gggtaggggc cca 1543
285 <210> SEQ ID NO: 24
286 <211> LENGTH: 55
287 <212> TYPE: DNA
288 <213> ORGANISM: rape mosaic virus
290 <400> SEQUENCE: 24
291 gatggcgcct taatacgact cactatagtt ttatttttgt tgcaacaaca acaac 55
293 <210> SEQ ID NO: 25
294 <211> LENGTH: 30
295 <212> TYPE: DNA
296 <213> ORGANISM: rape mosaic virus
298 <400> SEQUENCE: 25
299 cttgtgccct tcatgacgag ctatatcacg 30
301 <210> SEQ ID NO: 26
302 <211> LENGTH: 497
303 <212> TYPE: DNA
304 <213> ORGANISM: rape mosaic virus
306 <400> SEQUENCE: 26
307 ccttaatacg actcactata gttttatttt tgttgcaaca acaacaaca attacaataa 60
308 caacaaaaca aatacaaaaca acaacaacat ggcacaattt caacaaacag taaacatgca 120
309 aacattgcag gctgccgcag ggcgcaacag cctgggtgaat gatttagcct cagcagtggt 180
310 ttatgacaat gctgtcgagg agctaaatgc acgctcgaga cgccctaagg ttcattactc 240
311 caaatcagtg tctacggaac atgacgctgt tagcttcaaa cgcttatccg gagtttgaga 300
312 tttcctttac tcatacccaa catgccgtac actcccttgc ggggtggccta aggactcttg 360
313 agtttagagta tctcatgatg caagttccgt tcggttctct gacgtacgac atcggtggtg 420
314 actttgcagc gcaccttttc aaaggacgcg actacgttca ctgctgtatg ccaaacttgg 480

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RAW SEQUENCE LISTING ERROR SUMMARY  
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:63; N Pos. 6  
Seq#:64; N Pos. 7  
Seq#:67; N Pos. 7,10  
Seq#:68; N Pos. 7,10,13,16